

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A fluid flow meter conditioning body, for placement in-line of a fluid conveying conduit comprising

an elongated inlet flow section,

an elongated flow measurement section,

~~for containing~~ a velocity sensor extending into a space defined by said flow measurement section, and

a flow nozzle intermediate said inlet flow section and said flow measurement section for substantially flattening the velocity profile of the fluid at the velocity sensor, wherein

said inlet flow section, said flow nozzle and said flow measurement section are arranged along a longitudinal axis,

said inlet flow section, said flow nozzle and said flow measurement section communicate for fluid flow in a direction from the inlet flow section toward the flow measurement section, and

a cross section of said inlet flow section, perpendicular to said central longitudinal axis, is greater than a comparable cross section of said flow measurement section.

Claim 2 (currently amended): A fluid flow meter conditioning body, for placement in-line of a fluid conveying conduit comprising

an elongated inlet flow section,

an elongated flow measurement section for containing a velocity sensor, and

a flow nozzle intermediate said inlet flow section and said flow measurement section for substantially flattening the velocity profile of the fluid, wherein:

said inlet flow section, said flow nozzle and said flow measurement section are arranged along a longitudinal axis,

said inlet flow section, said flow nozzle and said flow measurement section communicate for fluid flow in a direction from the inlet flow section toward the flow measurement section, and

a cross section of said inlet flow section, perpendicular to said central longitudinal axis, is greater than a comparable cross section of said flow measurement section,

~~The fluid flow meter conditioning body of claim 1, further comprising~~

one of:

an elongated inlet flow diffuser upstream of said inlet flow section,

an elongated outlet flow diffuser downstream of said flow measurement section, and

an elongated inlet flow diffuser upstream of said inlet flow section and an elongated outlet flow diffuser downstream of said flow measurement section, wherein

each said diffuser is arranged along said longitudinal axis and communicates with the inlet flow section, the flow nozzle, and the flow measurement section for fluid flow therethrough.

Claim 3 (original): The fluid flow meter conditioning body of claim 1, wherein said nozzle has a beta of between about 0.3 and 0.7.

Claim 4 (original): The fluid flow meter conditioning body of claim 2, wherein said nozzle has a beta of between about 0.3 and 0.7.

Claim 5 (original): The fluid flow meter conditioning body of claim 3, wherein said flow nozzle has a transition between the inlet and the outlet having a profile, in a plane containing said central longitudinal axis, which is arc shaped, elliptically shaped, or bell-shaped.

Claim 6 (original): The fluid flow meter conditioning body of claim 4, wherein said flow nozzle has a transition between the inlet and the outlet having a profile, in a plane containing said central longitudinal axis, which is arc shaped, an elliptically shaped, or bell-shaped.

Claim 7 (original): The fluid flow meter conditioning body of claim 2, wherein

each inlet diffuser is of a length to obtain a half-angle expansion of about 6-9 degrees, and has a uniform transition between its inlet and outlet, and

each outlet diffuser is of a length to obtain a half-angle expansion of about 6-9 degrees, and has a uniform transition between its inlet and outlet.

Claim 8 (original): The fluid flow meter conditioning body of claim 1, wherein

said flow measurement section includes a sensor assembly for supporting said velocity sensor.

Claim 9 (original): The fluid flow meter conditioning body of claim 8, wherein

said sensor assembly supports said velocity sensor to be centered on a central longitudinal axis of said flow measurement section at a point along the length of the flow measurement section which is a distance of about 1.5-3.5 times the diameter of the flow measurement section.

Claim 10 (original): The fluid flow meter conditioning body of claim 1, wherein

a central longitudinal axis of an inlet of said nozzle is displaced from a central longitudinal axis of an outlet of said nozzle, so as to form an eccentric nozzle.

Claim 11 (original): The fluid flow meter conditioning body of claim 2, wherein

a central longitudinal axis of an inlet of said nozzle is displaced from a central longitudinal axis of an outlet of said nozzle, so as to form an eccentric nozzle, and

a central longitudinal axis of an inlet of each diffuser is displaced from a central longitudinal axis of an outlet of each diffuser, so as to form an eccentric diffuser.

Claim 12 (currently amended): A flow measurement system, comprising

a fluid flow meter conditioning body, for placement in-line of a fluid conveying conduit comprising

an elongated inlet flow section,

an elongated flow measurement section, ~~for containing a velocity sensor,~~

a flow nozzle intermediate said inlet flow section and said flow measurement section,

a velocity sensor within said flow measurement section, and

a velocity sensor electronic circuit, wherein

said inlet flow section, said flow nozzle and said flow measurement section are arranged along a longitudinal axis, said inlet flow section,

said flow nozzle and said flow measurement section communicate for fluid flow in a direction from the inlet flow section toward the flow measurement section, and

a cross section of said inlet flow section, perpendicular to said central longitudinal axis, is greater than a comparable cross section of said flow measurement section.

Claim 13 (original): The flow measurement system of claim 12, further comprising one of

an elongated inlet flow diffuser upstream of said inlet flow section,

an elongated outlet flow diffuser downstream of said flow measurement section, and

an inlet flow diffuser upstream of said inlet flow section and an elongated outlet flow diffuser downstream of said flow measurement section, wherein

each said diffuser is arranged along said longitudinal axis and communicates with the inlet flow section, the flow nozzle, and the flow measurement section for fluid flow therethrough.

Claim 14 (original): The flow measurement system of claim 12, wherein said velocity sensor is a thermal convection mass flow sensor and the electronic circuit is a constant power anemometer type or a constant temperature anemometer type.

Claim 15 (original): The flow measurement system of claim 13, wherein said velocity sensor is a thermal convection mass flow sensor and electronic circuit is a constant power anemometer type or a constant temperature anemometer type.

Claim 16 (original): In a method for measuring fluid flow in an apparatus, the improvement comprising the step of conditioning the fluid flowing through the apparatus so that the fluid has a substantially flattened fluid velocity profile at the point of measurement.

Claim 17 (original): The improvement of claim 16, wherein the apparatus comprises a fluid flow meter conditioning body.

Claim 18 (original): The improvement of claim 17, wherein the fluid flow meter conditioning body has an inlet section connected to an adjacent conduit, further comprising the step of matching the inside diameter of the conduit to the inside diameter of the inlet section.

Claim 19 (original): The improvement of claim 17, wherein the fluid flow meter conditioning body is connected to an adjacent conduit, and wherein the fluid flow meter conditioning body has a flow measurement section, further comprising the step of matching the inside diameter of the conduit to the diameter of the flow measurement section.